REMARKS/ARGUMENTS

The arguments and amendments presented herein incorporate the arguments and amendments Applicants discussed with the Examiner during the phone interviews on June 14, 2007. Applicants submit that the arguments and amendments presented herein make the substance of the phone interview of record to comply with 37 CFR 1.133. The Examiner requested Applicants to make the amendments discussed during the phone interview to advance prosecution. The Examiner said the discussed amendments may overcome the cited art and that the Examiner would reconsider the rejections in view of the amendments and arguments. If the Examiner believes that further information on the interview needs to be made of record to comply with the requirements, Applicants request the Examiner to identify such further information.

Applicants amended claim 19 to change the format from "method" to "network adaptor". Claim 24 is canceled.

1.   Provisional Obviousness Type Double Patenting Rejection

The Examiner provisionally rejected claims 1-33 on grounds of obviousness-type double patenting (ODP) over the claims of Application No. 10/637,305 ("Copending Application"), filed on August 8, 2003. (Office Action, pg. 3)

Applicants note that the present application was filed earlier than the Copending Application. Applicants will take action at a later date with respect to this ODP rejection if necessary as provided in the Manual of Patent Examination and Procedure (MPEP) Sec. 804(I)(B)(1), pgs. 17-18 (Rev. 5, Aug. 2006)

2.   Claim 1-33 are Patentable Over the Cited Art

The Examiner rejected claims 1-33 as anticipated (35 U.S.C. §102) by Vepa (U.S. Patent No. 6,490,632). Applicants traverse with respect to the amended claims.

Applicants note that the Examiner rejected the claims under 35 U.S.C. §102(e). However, Applicants believe that Section 102(a) may have been the more appropriate section for the rejection because Vepa issued on Dec. 3, 2002, before the present Application was filed on July 2, 2003.

Amended claims 1, 14, 20, and 25 concern processing a packet to transmit on a network in a host system including a plurality of network adaptors, and require: receiving at a receiving network adaptor a packet; implementing, within the receiving network adaptor, a load balancing algorithm to select one of the network adaptors to transmit the received packet; and if the selected network adaptor is not the receiving network adaptor, then forwarding, with the receiving network adaptor, the received packet to the selected network adaptor.

Applicants amended the claims as discussed during the phone interview and submit additional clarification amendments. Applicants amended the claims to clarify that the network adaptor receiving the packet implements a of "load balancing algorithm". Applicants further amended claims 1 and 25 to clarify that the network adaptor receiving the packet comprises a "receiving network adaptor" and to clarify that the receiving network adaptor forwards the packet if the selected packet is not the receiving network adaptor. These amended requirements are disclosed on at least para. [0009], pg. 3 and [0012], pg. 5, FIG. 2, blocks 110 and 112.

During the phone interview, the Examiner indicated that such clarification amendments as made above would likely distinguish over the cited art and that the Examiner would reconsider the rejection and update the search.

The Examiner cited col. 7, lines 5-20 and col. 8, lines 38-53 of Vepa as disclosing the pre-amended load balancing claim requirement (Office Action, pg. 4) which now recites implementing, within the receiving network adaptor, a load balancing algorithm to select one of the network adaptors to transmit the received packet. Applicants traverse with respect to the amended claims.

The cited col. 7 mentions that a server is coupled to a plurality of network interface cards (NICs) to provide a link between the server and a network, and that any number of NICs may be used and integrated into the server or externally coupled. Nowhere does this cited col. 7 anywhere disclose that one of the NICs implement a load balancing algorithm to select one of a plurality of network adaptors to transmit the received packet.

The cited col. 8 mentions that the server includes a software element referred to as load balancing scheme 335 to intercept all packets and select one of the plurality of NICs to use to transmit the packet. In FIG. 4, the load balancing scheme 335 is shown as external to the network cards, not internal.

Nowhere does the cited col. 8 anywhere disclose or mention the claim requirement that a network adaptor implement a load balancing algorithm to select one of the network adaptors to transmit the received packet. Instead, the cited col. 8 has a software element in the server do the load balancing algorithm to select one NIC (network adaptor) to use.

Applicants further submit that Vepa teaches away from the claim requirement that the receiving network adaptor implement the load balancing algorithms to select one of the network adaptors because Vepa mentions that "[b]y integrating load balancing scheme 335 into server computer system 190, the present embodiment of the present invention takes advantage of the abundant resources (e.g., processing power and memory) available in a server computer system." Thus, the cited Vepa discusses and concerns implementing the load balancing scheme in the server, not the receiving network adaptor as claimed.

The Examiner cited col. 10, lines 8-35 of Vepa as disclosing the pre-amended forwarding claim requirement (Office action, pgs 4-5), which now recite that if the selected network adaptor is not the receiving network adaptor, then forwarding, with the receiving network adaptor, the received packet to the selected network adaptor.

The cited col. 10 discusses the benefits of the load balancing scheme as evenly distributing outgoing packets over the NICs, to establish an affinity between a NIC and a client computer system, distribute client traffic, etc.

Nowhere does the cited col. 10 disclose or mention that if the load balancing algorithm implemented in the first network adaptor does not select the receiving network adaptor that the receiving network adaptor forwards the packet to the selected network adaptor. The cited col. 10 discusses a software element selecting one NIC and then sending a packet to the selected NIC. There is no disclosure or mention in the cited col. 10 that one NIC implements a load balancing algorithm to select another NIC and then forwarding the packet to that selected NIC.

Accordingly, amended claims 1, 14, 20, and 25 are patentable over the cited art because the cited Vepa does not disclose all the requirements of these claims.

Claims 2-7, 15-19, 21-24, and 26-30 are patentable over the cited art because they depend from one of claims 1, 14, and 25, which are patentable over the cited art for the reasons discussed above. Moreover, the following dependent claims provide additional ground of patentability over the cited art.

Claims 2, 15, 24, and 26 depend from claims 1, 14, 20, and 25, respectively, and further require determining, with the receiving network adaptor, whether the receiving network adaptor is a primary network adaptor or a secondary network adaptor; and transmitting, with the receiving network adaptor, the received packet over the network if the receiving network adaptor is the secondary network adaptor, wherein the load balancing algorithm implemented in the receiving network adaptor selects one of the network adaptors in response to determining that the receiving network adaptor is the primary network adaptor.

Applicants amended these claims to clarify the claim language and integrate with the amended claim language of the base claims.

The Examiner cited col. 13, lines 25-41 of Vepa as disclosing the additional requirements of these claims. (Office Action, pg. 55) Applicants traverse.

The cited col. 13 mentions a fault tolerance module to determine whether a NIC is functioning to maintain a list of NICs that are active, and adds and removes addresses depending on the status of the NICs.

Nowhere does the cited col. 13 anywhere disclose that a network adaptor (or NIC) itself Transmit the packet if it determines it is a secondary network adaptor and that a load balancing algorithm in the receiving network adaptor selects' one of the network adaptors if the receiving network adaptor is the primary one. Instead, the cited col. 13 discusses how a list is maintained on the status of the NICs. The cited col. 13 does not disclose one of the NICs performing the claimed load balancing and forwarding operations depending on the NIC determining that it is a primary or secondary network adaptor.

Accordingly, claims 2, 15, 24, and 26 are patentable over the cited art because the additional requirements of these claims are not disclosed in the cited Vepa.

Amended claims 3 and 27 depend from claims 2 and 26, respectively, and further require that only the load balancing algorithm implemented in the primary network adaptor selects one of the network adaptors.

Applicants amended these claims to clarify the claim language and to conform the language to amendments made to the base and intervening claims.

The Examiner cited the above discussed col. 13 of Vepa as disclosing the additional requirements of these claims. (Office Action, pg. 5) As discussed, the cited Vepa discusses determining and maintaining a list on the status of NIC cards. Nowhere does the cited col. 13

anywhere disclose or mention that only the load balancing algorithm implemented in the primary network adaptor selects one of the network adaptors. There is not disclosure in the cited Vepa that only the NIC does the load balancing to select between NICs.

Accordingly, claims 3 and 27 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Vepa.

Amended claims 4, 16, and 28 depend from claims 1, 14, and 25, respectively, and further require that the load balancing algorithm selects one of the network adaptors by selecting one of the network adaptors as a function of a destination network address to which the received packet is to be transmitted over the network.

Applicants amended these claims to clarify the language and to conform the language to amendments made to the base claims.

The Examiner did not cite any section of Vepa as disclosing the additional requirements of these claims. (Office Action, pg. 5) If the rejection is maintained, Applicants request that the Examiner cite where Vepa discloses these claim requirements.

Amended claims 6, 17, and 29 depend from claims 5, 16, and 28, respectively, and further require selecting one network adaptor as the function of the target network address comprises using a hash algorithm to select one network adaptor based on the target network address.

Applicants amended these claims to clarify "selecting one network adaptor."

Applicants submit that these claims are patentable over the cited art because they depend from one of the base and intervening claims which are patentable over the cited art for the reasons discussed above.

Amended claims 7, 18, and 30 depend from claims 1, 14, and 23, respectively, and further require that the load balancing algorithm further performs determining one network adaptor based on a relative load of each of the network adaptors.

Applicants amended these claims to clarify the language and to conform the language to amendments made to the base claims.

Applicants submit that these claims are patentable over the cited art because they depend from one of the base claims, which are patentable over the cited art for the reasons discussed above.

Amended independent claim 8 recites: receiving a packet; determining a primary network adaptor comprising one of a plurality of network adaptors, wherein the network adaptors include the primary network adaptor and at least one secondary network adaptor; and initiating transmission of the packet to the primary network adaptor, wherein the primary network adaptor implements a load balancing algorithm to select one of the primary or secondary network adaptors to transmit the received packet and, in response to the load balancing algorithm selecting one second network adaptor, the primary network adaptor redirects the packet to one of the at least one secondary network adaptors to transmit the.

Applicants amended claim 8 to remove the preamble and to include requirements and clarifications similar to those added to claim 1.

The Examiner cited the above discussed sections of Vepa cited against claim 1 with respect to claim 8. Applicants submit that claim 8 is patentable over the cited art for the reasons discussed with respect to claim 1, including the explanations concerning the primary network adaptor implementing the load balancing algorithms to select one of the network adaptors.

Claims 9 and 10 are patentable over the cited art because they depend from claim 8. C

Claim 10 depends from claim 8 and recites that the device driver further performs: detecting a failure of one network adaptor designated as the primary network adaptor; determining an available network adaptor to function as the primary network adaptor, wherein subsequently received packets are transmitted to the determined network adaptor; configuring a register within the determined network adaptor to cause the determined network adaptor to operate as the primary network adaptor and perform load balancing operations.

The Examiner cited col. 13, lines 25-41 as disclosing the additional requirements of these claims. (Office Action, pg. 6) Applicants traverse.

The cited col. 13 mentions a fault tolerance module to determine whether a NIC is functioning to maintain a list of NICs that are active, and adds and removes addresses depending on the status of the NICs.

Nowhere does the cited col. 13 anywhere disclose configuring a register within the determined network adaptor to cause the determined network adaptor to operate as the primary network adaptor and perform load balancing operations. Instead, the cited col. 13 discusses how a list is maintained on the status of the NICs. The cited col. 13 does not disclose one of the NICs being configured to perform load balancing.

Accordingly, claim 10 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Vepa.

Applicants amended claim 11 to substantially include the amendments made to claim 10. Applicants submit that claims 11-13 are patentable over the cited art for the reasons discussed with respect to claims 8-10.

Applicants submit that claims 31-33 are patentable over the cited art for the reasons discussed with respect to claims 1-13 because claims 31-33 substantially include the requirements of claims 11-13.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-23 and 25-33 are patentable. Should any additional fees be required beyond those paid, please charge Deposit Account No. 50-0585.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

Dated: June 25, 2007   By:____/David Victor/_____

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